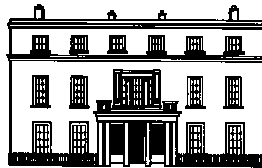


An Roinn Oideachais agus Scileanna
Department of Education and Skills

Subject Inspection of Mathematics
REPORT

Meánscoil Iognáid Rís,
Naas, County Kildare
Roll number: 61710C

Date of inspection: 18 March 2015



A N R O I N N | D E P A R T M E N T O F
O I D E A C H A I S | E D U C A T I O N
A G U S S C I L E A N N A | A N D S K I L L S

**REPORT
ON
THE QUALITY OF LEARNING AND TEACHING IN MATHEMATICS**

INFORMATION ON THE INSPECTION

Dates of inspection	March 16 and 18 2015
Inspection activities undertaken <ul style="list-style-type: none">• Review of relevant documents• Discussion with principal, deputy principal and teachers• Interaction with students	<ul style="list-style-type: none">• Observation of teaching and learning during ten class periods• Examination of students' work• Discussion with the learning-support co-ordinator• Feedback to principal and teachers

MAIN FINDINGS

- The quality of teaching and learning, was in the vast majority of lessons, either very good or excellent.
- The very best lessons exploited the teaching approaches espoused by *Project Maths* to great effect, established and utilised clear links between the different curricular strands and featured very good teacher questioning.
- Classroom management, student participation and engagement were of a very high standard.
- Timetabling provision for Mathematics is very good, as is the provision for students requiring additional support in Mathematics.
- The mathematics department is very positively disposed to the rationale underpinning *Project Maths*.
- Subject department planning in Mathematics is of a very high quality.

MAIN RECOMMENDATIONS

- When engaging in subject department planning in Mathematics, teachers should explore how the strategies associated with *Assessment for Learning* (AfL) can be successfully integrated into the teaching and learning of Mathematics and how open-ended questions and extension activities that promote solution curiosity can be integrated across all mathematics lessons.
 - As part of the planning process, teachers should also seek to identify, capture and mainstream the best approaches to teaching and learning Mathematics through group discussions on pedagogy, resource development and integration and the establishment of common approaches to teaching key concepts in Mathematics.
-

INTRODUCTION

Meánscoil Iognáid Rís is an all-boys post primary school located in Naas, Co. Kildare. It operates under the trusteeship of the *Edmund Rice Schools Trust* and offers an extensive curriculum that includes Transition Year as an option for students entering senior cycle. At the time of the inspection the school had an enrolment of 954.

TEACHING AND LEARNING

- The quality of teaching and learning was, in the vast majority of lessons, either very good or excellent. In the very best cases, the teaching methods promoted by *Project Maths* were executed with great skill and every care was taken to ensure that students were facilitated in developing a deep understanding of the material being covered. In one lesson, however, the approach was overly traditional and would have benefited greatly from the inclusion of more student-centred context-rich tasks.
- A striking feature of the best lessons was the context-rich nature of the lesson content and the degree to which the links between the curricular strands were explored and exploited. These lessons also featured very good teacher questioning which demanded that the students hypothesise, draw conclusions and defend their reasoning. The inclusion of these open-ended questions and extension activities that promote solution curiosity should be incorporated as common practice in all mathematics lessons.
- Classroom management, student participation and engagement were very good in all lessons. All of the interactions clearly indicated that the students are positively disposed to Mathematics and see it as a subject with which they can engage successfully.
- Practices relating to the on-going assessment of student progress are very good. Homework is regularly assigned and it was particularly noteworthy that the lessons were not dominated by the correction of homework but rather, if students encountered difficulties these were comprehensively dealt with. However, the condition of the students' copybooks varied from class to class and a more consistent approach to monitoring their quality should be implemented by the teachers.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Timetabling provision for Mathematics is very good. The time allocated to teaching Mathematics is generous and the provision of a double period in fifth and sixth year is ideally suited to the requirements of the revised syllabuses. The scheduling of mathematics classes is also very good and allows students to follow higher level for as long as possible while ensuring that learning support in Mathematics can be provided in a streamlined and effective manner.
- The mathematics department is very well resourced and has access to the school's extensive information and communication technology (ICT) infrastructure. Arrangements for purchasing, storing and sharing the various resources required for the implementation of *Project Maths* are very good.
- The mathematics department is very positively disposed to the philosophy underpinning the new mathematics curriculums and has been very successful in promoting positive attitudes to Mathematics among the student body. The qualifications profile of the department is very good and the commitment of its members to their on-going professional development is admirable.

- AfL has been identified as the next area for development in implementing the school's assessment policy. This is a very welcome development and subject-department planning in Mathematics should consider the most effective means of incorporating AfL into teaching and learning and the department's overall assessment practices. Planning should address the role of teacher questioning in lessons, student thinking time, the student as problem solver and problem poser.
- Provision for students requiring additional support in Mathematics is very good. A range of testing vehicles including the *Mathematics Competency Test*, available from www.pdst.ie, is used to establish the skills and competences of the students transferring into first year and a number of interventions, appropriate to the needs of the students, are then put in place to address any evident shortcomings.

PLANNING AND PREPARATION

- Subject department planning in Mathematics is of a very high standard and reflects the collaborative manner in which the department operates. The department is jointly co-ordinated and while this model was introduced as a temporary measure, given the size of the department and the significant workload involved, consideration should be given to retaining joint co-ordination when the existing arrangement comes to an end.
- Effective subject department planning structures are in place and a very good subject department plan for Mathematics has been developed. In order to capture and mainstream the types of approaches that work best in developing students' understanding, future planning should involve group discussions on pedagogy, resource development and integration and common approaches to teaching key concepts in Mathematics. This approach will guarantee greater uniformity in the approach to lesson delivery and provide great support to teachers joining the department.
- Individual teacher lesson planning was, in the vast majority of cases, very good.
- A process of redeveloping the mathematics plan for transition year is underway. Currently, the feasibility of linking the content of the plan to the work of the transition-year mini company is being trialled. This is a very innovative approach and promises to provide the students with exposure to relevant content in a context-rich fashion. The plan that emerges should also include opportunities for students to engage in research in curriculum-relevant areas particularly through the use of dynamic software.

The draft findings and recommendations arising out of this evaluation were discussed with the principal, deputy principal and subject teachers at the conclusion of the evaluation. The board of management was given an opportunity to comment in writing on the findings and recommendations of the report, and the response of the board will be found in the appendix of this report.

Appendix

SCHOOL RESPONSE TO THE REPORT

Submitted by the Board of Management

Area 1: Observations on the content of the inspection report.

The Board of Management welcomes the report and has commended the teachers of Mathematics on the hugely positive observations within the report. It welcomes especially the commendations in relation to the following:

- 1 The quality of teaching and learning was wither very good or excellent.
- 2 Classroom management, student participation and engagement were very good.
- 3 Ongoing assessment of pupils work was very good.
- 4 Timetabling provision for Maths is very good.
- 5 The Maths department is very well resourced.
- 6 Subject department planning is of a very high standard and reflects the collaborative manner in which the department operates.

Area 2: Follow-up actions planned or undertaken since the completion of the inspection activity to implement the findings and recommendations of the inspection

The Board of Management has requested that the teachers of Mathematics consider the recommendations as part of their subject planning. AFL has been identified as the next area for development in implementing the school's assessment policy. The Maths department will consider the most effective means of incorporating AFL into teaching and learning and the department's overall assessment practices.